

Attorney Docket No.: 42390P4912X

Patent**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Mohammad Abdallah et al.

Application No.: 09/783,875

Filed: February 14, 2001

For: **METHOD AND APPARATUS FOR  
FLOATING POINT OPERATIONS  
AND FORMAT CONVERSION  
OPERATIONS**

Examiner: Stacy Whitmore

Art Unit: 2812

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Commissioner for Patents  
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**INFORMATION DISCLOSURE STATEMENT**

Enclosed is a copy of Information Disclosure Citation Form PTO-1449, along with copies of any foreign patents or non-patent literature documents cited thereon. It is respectfully requested that the cited documents be considered, and that the enclosed copy of Information Disclosure Citation Form PTO-1449 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant.

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

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**CERTIFICATE OF TRANSMISSION**

I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office on the date shown below.

By: Anne Collette  
Anne ColletteDate: 9/9/2005

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

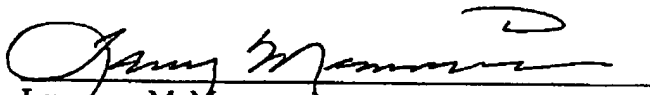
- \_\_\_\_\_ 37 C.F.R. §1.97(b).
- X   37 C.F.R. §1.97(c). If so, then enclosed with this Information Disclosure Statement is one of the following:
- \_\_\_\_\_ A statement pursuant to 37 C.F.R. §1.97(e) or
- X   A Fee Transmittal authorizing \$180.00 for the fee under 37 C.F.R. § 1.17(p) to be charged to Deposit Account 02-2666.
- \_\_\_\_\_ 37 C.F.R. §1.97(d). If so, then enclosed with this Information Disclosure Statement are the following:
- (1) A statement pursuant to 37 C.F.R. §1.97(e); and
  - (2) A Fee Transmittal authorizing \$180.00 for the fee under 37 C.F.R. § 1.17(p) to be charged to Deposit Account 02-2666.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 9-9-2005

  
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## PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

JUN 5 / 2000

PCT

To: EDWIN H. TAYLOR  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
13400 WILSHIRE BOULEVARD  
7TH FLOOR  
LOS ANGELES, CA 90025

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NOTIFICATION OF TRANSMITTAL OF  
INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT

(PCT Rule 71.1)

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN  
LOS ANGELES

Date of Mailing  
(day/month/year)

30 MAY 2000

|  |   |   |  |
|--|---|---|--|
| Applicant's or agent's file reference<br>042390.P4912PCT |   | IMPORTANT NOTIFICATION                          |  |
| International application No.<br>PCT/US99/09156          | International filing date (day/month/year)<br>27 APRIL 1999 | Priority Date (day/month/year)<br>30 APRIL 1998 |  |
| Applicant<br>INTEL CORPORATION                           |   |   |  |

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

|  |  |
|--|--|
| Name and mailing address of the IPEA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231 | Authorized officer<br>CHUONG D. NGO <i>James R. Matthews</i> |
| Facsimile No. (703) 305-3230   | Telephone No. (703) 305-3800                                 |

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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|  |  |   |
|--|--|---|
| Applicant's or agent's file reference<br>042390.P4912PCT   | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |   |
| International application No.<br>PCT/US99/09156  | International filing date (day/month/year)<br>27 APRIL 1999  | Priority date (day/month/year)<br>30 APRIL 1998 |
| International Patent Classification (IPC) or national classification and IPC<br>IPC(6): G06F 7/38 and US Cl.: 708/495, 204 |  |   |
| Applicant<br>INTEL CORPORATION   |  |   |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

|  |  |
|--|--|
| Date of submission of the demand<br>11 NOVEMBER 1999   | Date of completion of this report<br>02 MAY 2000   |
| Name and mailing address of the IPEA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231<br>Facsimile No. (703) 305-3230 | Authorized officer<br>CHUONG D. NGO <i>James R. Matthews</i><br>Telephone No. (703) 305-1800 |

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/09156

## 1. Basis of the report

## 1. With regard to the elements of the international application:\*

☒ the international application as originally filed☒ the description:

pages 1-15

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the claims:

pages 16-21

pages NONE, as originally filed

pages NONE, as amended (together with any statement) under Article 19

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the drawings:

pages 1-7

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

☒ the sequence listing part of the description:

pages NONE

pages NONE, as originally filed

pages NONE, filed with the demand

pages NONE, filed with the letter of

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig. NONE5. ☒ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*4m: replacement sheets containing such amendments must be referred to under item 1 and annexed to this report

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/09156

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement****Novelty (N)**Claims 6,7 and 9-16

YES

Claims 1-5 and 8

NO

**Inventive Step (IS)**Claims 6,7 and 9-16

YES

Claims 1-5 and 8

NO

**Industrial Applicability (IA)**Claims 1-16

YES

Claims NONE

NO

**2. citations and explanations (Rule 70.7)**

Claim 1-5 and 8 lack novelty under PCT Article 33(2) as being anticipated by Wolrich et al. (5,627,773).

Wolrich et al discloses, for example in figures 3 and 4 the same floating point arithmetic circuit for converting numbers between an integer format and a floating point format as claimed (see abstract). It is noted that the longest floating point is represented in double precision having a longest mantissa of 52 bit, thus only requires 52-bit data path for floating point arithmetic. However, Wolrich et al. teaches the circuit having 64-bit data path including shift register and rounding circuit for enabling the conversion between a floating point and a quad word integer. The additional bits in registers of the data path beyond the required 52-bit for floating point arithmetic can be seen as the additional register position to accommodate a shift beyond the data path required by an arithmetic operation as claimed.

Claims 6,7 and 9-16 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a conversion between a floating point format and an integer format using a floating point arithmetic circuit by determining whether a shift operation required to align a floating point for integer representation will cause bits to be shifted beyond the extreme rightmost bit of the floating point number, and using a second conversion constant to determine a number of bit positions to shift if the shift operation will cause bits to be shifted beyond the extreme rightmost bit, otherwise, using a first conversion constant to determine a number of bit positions to shift.

----- NEW CITATIONS -----

NONE

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US99/09156

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**I. BASIS OF REPORT:**

5. (Some) amendments are considered to go beyond the disclosure as filed:  
NONE